
U.S. Department of the Interior • U.S. Geological Survey

MINERAL INDUSTRY SURVEYS

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SODA ASH AND SODIUM SULFATE IN NOVEMBER 1996

Natural soda ash production in November was 851,000 metric tons, 2% lower than the previous month's production, according to the U.S. Geological Survey. Ending inventories were 285,000 tons, a 2% decrease from that of the preceding month. Wyoming trona production in November was 1,270,000 tons. Total production of chemical caustic soda as soda ash equivalent, based on data from all three producers, was 18,900 tons in November.

Apparent consumption of soda ash for October was

415,000 tons, 25% lower than the October 1995 level of 550,000 tons. Exports and imports of soda ash in October were 392,000 tons and 9,340 tons, respectively.

The cumulative soda ash statistics through October 1996, compared with those of the corresponding period in 1995, were as follows: production 1% lower, imports 25% higher, exports 7% higher, ending stocks 67% higher, and apparent consumption 5% lower.

For further information about the conference, see page 2 and contact:



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ROCK SPRINGS, WYOMING—JUNE 10 to 12, 1997

COSPONSORS:

- UNITED STATES GEOLOGICAL SURVEY
- UNITED STATES BUREAU OF LAND MANAGEMENT
- WYOMING GEOLOGICAL SURVEY

1ST INTERNATIONAL SODA ASH CONFERENCE

To commemorate the 50th anniversary of the beginning of the Wyoming natural soda ash industry, the U.S. Geological Survey, the U.S. Bureau of Land Management, and the Wyoming Geological Survey, are sponsoring a three-day international conference on soda ash to be held at Rock Springs, WY, on June 10 to 12, 1997. The meeting will include two days of formal presentations and poster sessions by some of the world's leading experts in the soda ash industry followed by a third day of field trips to see the trona mines, soda ash refineries, and local outcrops of the Green River Formation.

The conference is wide-ranging in scope covering several categories, including geology, mining, processing, markets, and environmental issues. Although the Wyoming trona district will be emphasized, papers on natural deposits elsewhere in the world are included.

Speakers and titles of the papers to be presented:

- D. Kostick, U.S. Geological Survey, *History of the U.S. Soda Ash Industry*
T. Leigh, Tg Soda Ash, Inc., *Overview of the Geology of the Wyoming Trona Deposits*
J. Dyni, U.S. Geological Survey, *Exploration for Sodium Carbonate Deposits*
G. Smith, U.S. Geological Survey, *Owens Lake Trona Deposit*
K. Santini, Santini & Assoc, and G. Moulton, North Amer. Chem., *Geology & Resources of Searles Lake and Owens Lake*
C. Demirci, RTZ Group, Ankara, Turkey, *Beyazari Trona Deposit*
T. Murphy, U.S. Bureau of Land Management, *Leasing of Federal Land*
R. Harris, Wyoming Geological Survey, *Leasing of Trona on State Land*
R. See and N. Brown, Union Pacific Resources, *History of UPRR Trona Leasing*
H. Nagel, Union Pacific Resources, *Trona and Oil and Gas Leasing Conflicts*
R. Hughes, Solvay Minerals, *Discussion of the Mine Collapse at Solvay Minerals*
R. Day, White River Minerals Co., *Solution Mining of Colorado Nahcolite*
A. Ukidwe and H. Haynes, University of Wyoming, *Solution Mining of Trona*
G. Marlatt, Consultant, *Hydrocarbons Associated with Oil Shale and Trona*
R. Aitala, Isonex, Inc., *Process Selection Criteria for Refining Trona to Commercial Products*
P. Harben, P.W. Harben Inc., and C. Raleigh, Chem-Mineral Marketing Services, *Soda Ash Goes Global for Growth*
T. Whiteside, Harriman Chemsult Ltd., London, *Developments in the European Soda Ash Market--1990-1996*
B. Rischmiller, Brunner Mond & Co., *Soda Ash--A European Producer's Perspective*
C. Watts-Jones, Chem Systems, *The Soda Ash Industries of Russia and the Ukraine*
J. Chegwiddden, Roskill Information Services, *Asian Soda Ash Markets*

Special presentations by:

- Mr. D. George Harris, President, Harris Chemical Group
Mr. John Wold, President Wold Trona Co., Inc., *A New Entrant's Perspective of the Wyoming Soda Ash Industry*
Professor Donald Garrett, *Origin of the Wyoming Trona Deposits*

Poster sessions:

- S. Wiig, U.S. Bureau of Land Management, *Trona Resources of Wyoming*
N. Brown, Union Pacific Resources, *Computer Modeling of Trona Reserves*
M. Weller, Solvay Minerals, *The Anomalous Zone in Bed 17 of the Solvay Mine*
Additional papers and poster sessions will be announced in upcoming announcements.

Field trips:

- Trip 1: Underground tour of trona mine(s)
Trip 2: Surface tour of a soda ash refinery(s)
Trip 3: Outcrops of trona-bearing rocks of the Green River Formation, Bill Culbertson, U.S. Geological Survey

TABLE 1
SALIENT SODA ASH AND NATURAL SODIUM SULFATE STATISTICS 1/

Period	Soda ash (Thousand metric tons)		Natural sodium sulfate (Metric tons)	
	Production 2/	Ending stocks	Production	Ending stocks
1995:				
October	870	193	33,200	19,000
November	876	254	30,100	18,800
December	907	306	26,300	16,400
Total (Jan-Nov)	9,190	XX	301,000	XX
Total	10,100	XX	327,000	XX
1996:				
January	765	287	26,800	18,200
February	811	329	28,700	18,000
March	790	257	32,400	20,700
April	836	215	24,200	23,400
May	852	260	15,500	11,300
June	859	284	26,400	14,700
July	822	296	22,100	12,300
August	809	264	24,100	15,700
September	823	223	26,000	16,400
October	864	290 3/	30,700	21,200
November	851	285	24,100	14,300
Total	9,080	XX	281,000	XX

XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Production data includes soda ash equivalent from soda liquors only. Soda ash equivalent from mine water is not included. Soda liquors for the current year 1996 are withheld to avoid disclosing company proprietary data.

3/ Because of previously unreported inventory in remote locations by one producer, ending stocks are somewhat higher than the level of prior months.

TABLE 2
U.S. EXPORTS OF SODA ASH AND SODIUM SULFATE 1/

(Metric tons)

Period	Disodium carbonate		Disodium Sulfate				Total	
	Quantity (thousand metric tons)	Value 2/ (thousands)	Salt Cake		Other		Quantity	Value 2/ (thousands)
			Quantity	Value 2/ (thousands)	Quantity	Value 2/ (thousands)		
1995:								
October	320	41,700	1,390	111	671	187	2,060	298
November	275	36,600	1,580	131	487	170	2,070	301
December	286	36,300	10,400	793	192	84	10,600	877
Total (Jan-Oct)	3,010	372,000	47,500	3,940	6,230	2,140	53,800	6,070
Total	3,570	445,000	59,500	4,860	6,910	2,390	66,400	7,250
1996: 3/								
January	300	38,700	4,060	317	108	43	4,160	360
February	314	42,100	14,000	1,040	212	88	14,200	1,130
March	270	35,900	2,000	172	2,350	576	4,340	748
April	349	45,300	8,260	646	31	16	8,290	662
May	217	29,000	104	17	63	38	167	55
June	337	43,800	13,300	1,290	43	17	13,400	1,310
July	315	42,000	12,500	695	29	20	12,600	715
August	392	51,100	2,440	189	6,620	956	9,060	1,150
September	329	44,400	1,690	151	23	8	1,710	159
October	392	53,600	2,060	210	119	679	2,180	889
Total	3,210	426,000	60,400	4,730	9,590	2,440	70,000	7,170

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Free alongside ship (f.a.s.) value at U.S. ports.

3/ November 1996 data not available at time of publication.

Source: Bureau of the Census, as adjusted by the U.S. Geological Survey, using Journal of Commerce trade data and information.

TABLE 3
U.S. EXPORTS OF SODA ASH BY COUNTRY, 1996 1/

(Metric tons)

Country	January	February	March	April	May	June	July	August	September	October	Total Quantity	% of total
Argentina	13,000	--	8,950	--	--	--	22,200	--	17,100	14,100	75,400	3
Australia	--	--	5,000	--	--	--	5,000	25,100	--	5,070	40,200	1
Belgium	6,900	5,610	--	27,600	--	15,000	--	6,010	--	--	61,200	2
Bolivia	2,500	--	1,100	--	--	--	1,010	--	--	--	4,610	--
Brazil	34	42,300	17,800	7,050	--	--	5,040	28,000	--	52,400	153,000	5
Canada	16,700	21,300	23,900	14,100	17,300	20,200	26,900	21,700	15,200	19,900	197,000	7
Chile	21,900	--	19,100	--	17,200	--	24,600	--	17,200	--	99,900	4
China	13,000	--	8,000	4,970	4,500	--	4,500	--	--	7,500	42,500	2
Colombia	11,700	11,100	--	11,600	--	11,000	10,900	--	11,500	11,800	79,700	3
Costa Rica	--	--	--	1	--	--	--	--	4,000	--	4,000	--
Croatia	--	--	--	8,840	--	5,870	--	7,690	--	11,600	34,000	1
Dominican Republic	--	2,160	--	--	--	--	--	--	1,430	--	3,590	--
Ecuador	--	--	--	--	--	--	--	--	5,960	--	5,960	--
El Salvador	--	--	--	--	--	--	1,000	--	--	--	1,000	--
Germany	--	--	124	--	42	--	--	--	--	778	944	--
Ghana	--	--	--	--	--	--	16	--	--	--	16	--
Guatemala	--	5	3,500	--	--	--	3,300	(2/)	4,920	--	11,700	--
Honduras	--	--	--	--	--	--	200	--	--	--	200	--
Hong Kong	--	--	40	--	63	71	--	--	--	--	174	--
India	--	--	--	--	--	--	--	23,000	--	--	23,000	1
Indonesia	23,500	25,500	44,400	42,100	23,600	35,100	26,500	40,100	32,500	52,100	345,000	12
Ireland	383	--	--	--	392	--	583	583	--	16	1,960	--
Israel	--	--	8,000	--	--	--	--	7,910	--	--	15,900	1
Jamaica	2,000	29	--	--	--	--	1,990	--	--	11	4,030	--
Japan	7,900	36,400	--	39,600	11,600	46,400	27,700	26,400	38,600	39,000	274,000	10
Korea, Republic of	15,100	22,700	5,290	43,600	27,100	30,800	54,800	22,700	21,900	36,400	280,000	10
Malaysia	10,500	--	--	8,800	12,500	--	9,920	12,400	15,700	--	69,900	2
Mexico	33,200	39,300	34,600	32,700	26,800	34,100	28,100	30,900	27,100	28,300	315,000	11
Netherlands	--	--	2	--	--	101	--	--	19	--	122	--
New Zealand	40	20	40	7,070	--	20	4,020	7,000	40	137	18,400	1
Nigeria	--	--	--	--	--	--	--	--	--	4,940	4,940	--
Panama	--	--	--	--	2,000	--	--	--	--	--	2,000	--
Peru	4,020	--	4,140	--	6,230	--	--	--	5,050	--	19,400	1
Philippines	12,300	12,300	10,000	--	11,300	13,800	--	13,700	--	20,800	94,000	3
Poland	--	--	--	--	--	--	--	--	15,000	--	15,000	1
Russia	--	--	--	--	--	--	--	--	299	--	299	--
Saudi Arabia	18,000	--	--	17,500	3,790	22,000	22,000	22,000	--	6,760	112,000	4
Singapore	--	--	--	4,970	--	--	--	3,000	4,000	--	12,000	--
South Africa	--	24,500	27,100	25,000	--	25,100	--	--	22,000	20,000	144,000	5
Spain	11,400	--	--	--	16,000	9,300	--	5,960	22,500	--	65,200	2
Sweden	--	--	--	32	--	--	--	--	36	--	68	--
Taiwan	21,700	13,600	21,200	12,900	15,500	--	22,600	17,900	20,500	15,600	161,000	6
Thailand	23,000	28,000	25,000	8,300	21,500	20,500	12,300	22,800	4,800	24,700	191,000	7
Trinidad and Tobago	--	--	1,360	--	--	--	--	3,080	--	--	4,440	--
Turkey	--	--	--	7,310	--	--	--	7,000	--	--	14,300	1
United Arab Emirates	--	--	--	--	--	--	--	5,000	--	--	5,000	--
United Kingdom	--	1	--	--	--	--	1	--	--	--	2	--
Uruguay	--	--	1,000	--	--	--	--	--	--	--	1,000	--
Uzbekistan	--	--	7	--	--	--	--	--	--	--	7	--
Venezuela	30,800	29,200	--	24,500	--	47,900	--	32,400	21,500	20,000	206,000	7
Total	300,000	314,000	270,000	349,000	217,000	337,000	315,000	392,000	329,000	392,000	3,210,000	100

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Less than 1/2 unit.

Source: Bureau of the Census.

TABLE 4
U.S. IMPORTS OF SODA ASH AND SODIUM SULFATE 1/

(Metric tons)

Period	Disodium carbonate		Saltcake 2/		Disodium Sulfate		Total	
	Value 3/		Value 3/		Value 3/		Value 3/	
	Quantity	(thousands)	Quantity	(thousands)	Quantity	(thousands)	Quantity	(thousands)
1995:								
October	8,040	1,150	12,400	1,130	5,310	365	17,700	1,490
November	6,240	899	11,000	1,150	5,140	338	16,100	1,490
December	6,480	891	12,400	1,180	3,620	289	16,000	1,470
Total (Jan-Oct)	70,000	10,200	110,000	10,200	63,900	4,620	174,000	14,800
Total	82,700	12,000	134,000	12,500	72,600	5,250	206,000	17,700
1996: 4/								
January	8,130	1,140	12,000	1,120	4,070	276	16,000	1,390
February	7,400	1,050	10,300	966	3,260	279	13,600	1,250
March	9,460	1,330	13,500	1,150	2,920	220	16,400	1,370
April	8,510	1,200	11,200	993	1,950	186	13,100	1,180
May	8,440	1,130	13,700	1,330	1,690	184	15,400	1,510
June	8,770	1,200	14,400	1,400	2,250	342	16,600	1,750
July	8,630	1,180	9,940	987	3,800	405	13,700	1,390
August	8,310	1,140	11,700	1,110	2,940	270	14,600	1,380
September	10,500	1,440	14,400	1,400	1,550	193	15,900	1,590
October	9,340	1,260	12,200	1,200	1,300	163	13,500	1,360
Total	87,500	12,100	123,000	11,600	25,700	2,520	149,000	14,200

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes Glauber's salt.

3/ Customs, insurance, and freight (c.i.f) value at U.S. ports.

4/ November 1996 data not available at time of publication.

Source: Bureau of the Census.

TABLE 5
U. S. APPARENT CONSUMPTION OF SODA ASH 1/

(Metric tons)

Period	Production	Imports	Exports	Net stock		Apparent consumption 2/
				Increase	or Decrease	
1995:						
October	870,000	8,040	320,000	8,000	--	550,000
November	876,000	6,240	275,000	61,000	--	546,000
December	907,000	6,480	286,000	52,000	--	575,000
Total (Jan-Oct)	8,310,000	70,000	3,010,000	--	10,000	5,380,000
Total	10,100,000	82,700	3,570,000	103,000	--	6,510,000
1996:						
January	765,000	8,130	300,000	--	19,000	493,000
February	811,000	7,400	314,000	42,000	--	462,000
March	790,000	9,460	270,000	--	72,000	602,000
April	836,000	8,510	349,000	--	42,000	538,000
May	852,000	8,440	217,000	45,000	--	598,000
June	859,000	8,770	337,000	24,000	--	506,000
July	822,000	8,630	315,000	12,000	--	503,000
August	809,000	8,310	392,000	--	32,000	457,000
September	823,000	10,500	329,000	--	41,000	546,000
October	864,000	9,340	392,000	67,000	--	415,000
November	851,000	NA	NA	--	5,000	NA
Total (Jan-Oct)	8,230,000	87,500	3,210,000	--	16,000	5,120,000

NA Not available.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Production plus imports minus exports plus or minus stock changes.